



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (7505P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

7969-436

Date of Issuance:

1/22/20

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Renestra™ Insecticide

Name and Address of Registrant (include ZIP Code):

Mr. Warren Smith  
Product Registration Manager  
BASF Corporation, Agricultural Products  
26 Davis Drive, P.O. Box 13528  
Research Triangle Park, NC 27709-3528

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(B). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Shanta Adeeb, Product Manager 10  
Invertebrate & Vertebrate Branch 2  
Registration Division (7505P)

Date:

1/22/20

2. You are required to comply with the data requirements described in the DCI Order identified below:
  - a. *Alpha-Cypermethrin* GDCI-209600-1329

You must comply with all the data requirements within the established deadlines. If you have questions about the Generic DCI Order listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division:

<http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1>

3. Be aware that proposed data requirements have been identified in a Work Plan. For more information on these proposed data requirements, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: [http://www.epa.gov/oppsrrd1/contacts\\_prd.htm](http://www.epa.gov/oppsrrd1/contacts_prd.htm)
4. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 04/16/19

If you have any questions, please contact Mr. Carmen J. Rodia, Jr. by phone at (703) 306-0327, or via email at [Rodia.Carmen@epa.gov](mailto:Rodia.Carmen@epa.gov).

*Enclosures: Master Label Stamped "Accepted," dated 1/22/20  
Acute Toxicity Review, dated 12/04/19  
Product Chemistry Review, dated 12/30/19*

# RESTRICTED USE PESTICIDE

## Toxic to Fish and Aquatic Organisms

For retail sale to and use only by certified applicators, or persons under their direct supervision and only for those uses covered by the certified applicator's certification.



We create chemistry

Alpha-cypermethrin	Group	3A	Insecticide
Afidopyropen	Group	9D	Insecticide

# Renestra™

## Insecticide

[Optional text: **ABN: Renestra™ Inscalis® Insecticide**]

**ACCEPTED**

01/22/2020

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 7969-436

### For use in cotton and soybean

#### Active Ingredients:

afidopyropen, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-e]pyran-4-yl)methyl cyclopropanecarboxylate. . . . .	1.89%
alpha-cypermethrin: mixture of (S)-α-cyano-3-phenoxybenzyl (1R,3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate and (R)-α-cyano-3-phenoxybenzyl (1S,3S)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate . . . . .	5.30%
<b>Other Ingredients:</b> . . . . .	<u>92.81%</u>
<b>Total:</b> . . . . .	100.00%

Contains 0.47 pound of alpha-cypermethrin and 0.17 pound afidopyropen per gallon, formulated as a dispersible concentrate.

**EPA Reg. No. 7969-436**

**EPA Est. No.**

### KEEP OUT OF REACH OF CHILDREN

## WARNING/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See inside for complete **First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

**In case of an emergency endangering life or property involving this product, call 1-800-832-HELP (4357), twenty-four (24) hours per day seven (7) days per week.**

### Net Contents:

BASF Corporation  
26 Davis Drive, Research Triangle Park, NC 27709

## FIRST AID

<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• <b>DO NOT</b> induce vomiting unless told to do so by a poison control center or doctor.</li><li>• <b>DO NOT</b> give anything to an unconscious person.</li></ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>

## HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For additional information on this pesticide product (including health concerns, medical emergencies or pesticide incidents), you may contact BASF Corporation at 1-800-832-HELP (4357), twenty-four (24) hours per day seven (7) days per week.

## Precautionary Statements

### Hazards to Humans and Domestic Animals

**WARNING.** May be fatal if swallowed. Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

### Personal Protective Equipment (PPE)

**Mixers, loaders, applicators, and other handlers must wear the following:**

- Long-sleeved shirt and long pants,
- Chemical-resistant gloves made of barrier laminate or butyl rubber  $\geq$  14 mils or nitrile rubber  $\geq$  14 mils
- Shoes plus socks

See engineering controls for additional requirements.

### User Safety Requirements

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them.

### Engineering Controls

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

## USER SAFETY RECOMMENDATIONS

### Users should:

- Wash hands with plenty of soap and water before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates, oysters, and shrimp. **DO NOT** apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. **DO NOT** apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. **DO NOT** contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. **DO NOT** apply this product or allow it to drift to blooming crops if bees are visiting the treatment area.

### Groundwater Advisory

Afidopyropen and a degradate of concern may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

### Surface Water Advisory

**Renestra™ insecticide** may impact surface water quality due to run-off of rain water. This is especially true for poorly draining soils and soils with shallow groundwater.

**Renestra** is classified as having a medium-high potential for reaching both surface water and aquatic sediment via run-off for several weeks to months after application. A

well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams and springs, as required under the **Directions For Use**, will reduce the potential for loading of afidopyropen from run-off and sediment. Run-off of afidopyropen will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

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## Directions For Use

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### RESTRICTED USE PESTICIDE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This labeling must be in possession of the user at time of product application.

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

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### Use Restrictions

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- Apply this product only as specified on this label.
- **Renestra™ insecticide** is intended for use by professional applicators (including farmers and growers).
- **Renestra** is **NOT** for homeowner use.
- **DO NOT** apply this product using ultra low volume (ULV) applications.
- **DO NOT** exceed the maximum seasonal use rate, the maximum rate per application, or the total number of **Renestra** applications per season as stated in the **Crop-specific Application Instructions** table. Pre-harvest Interval (PHI) restrictions are also included in this table.
- **Renestra** is **NOT** for sale, distribution, or use in Nassau or Suffolk counties in New York state except by New York-specific supplemental labeling.
- **Renestra** is **NOT** for use in greenhouses.
- **DO NOT** make more than 2 sequential applications before rotating to a product of a different mode of action group.
- **DO NOT** make **Renestra** applications at intervals shorter than 7 days.
- No plant-back interval for Brassica head and stem vegetables, cotton, cucurbits, fruiting vegetables, leaf petioles vegetables, leafy vegetables, pome fruit, root crops, soybean, stone fruit, tree nuts, or tuberous and corm vegetables. A 30-day plant-back interval is appropriate for all food/feed crops not listed on this label.
- Observe all precautions and limitations in this label and the labels of products used in combination with **Renestra**. The use of **Renestra** not consistent with this label can result in injury to crops, animals, or persons.
- Keep containers closed to avoid spills and contamination. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

## Buffer Zones

**Vegetative Buffer Strips.** Construct and maintain a minimum 10-foot vegetative filter strip of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; and estuarine/marine habitats). Only apply **Renestra** onto fields where a well-maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat. For guidance, refer to the following publication for information on constructing and maintaining effective buffers: *Conservation Buffers to Reduce Pesticide Losses*. Natural Resources Conservation Services. USDA, NRCS. 2000. Fort Worth, Texas. 21pp. <https://permanent.access.gpo.gov/lps9018/www.wcc.nrcs.usda.gov/water/quality/common/pestmgt/files/newconbuf.pdf>

**Buffer Zone for Ground Applications (e.g., ground boom, overhead chemigation, or airblast).** **DO NOT** apply within 25 feet of aquatic habitats (such as lakes, reservoirs, rivers, permanent streams, marshes, natural ponds; and estuarine/marine habitats).

**Buffer Zone for Non-ULV Aerial Applications.** **DO NOT** apply within 150 feet of aquatic habitats (such as lakes, reservoirs, rivers, permanent streams, marshes, natural ponds; and estuarine/marine habitats). **DO NOT** apply the product using ultra-low volume (ULV) applications.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over long-sleeved shirt and long pants,
- Chemical-resistant gloves made of barrier laminate or butyl rubber  $\geq$  14 mils or nitrile rubber  $\geq$  14 mils
- Shoes plus socks

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food, or feed by storage or disposal.

### Pesticide Storage

Keep this product in its tightly closed original container. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals. **DO NOT** store near food or feed.

### Pesticide Disposal

Wastes resulting from using this product may be disposed of on-site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representatives at the nearest EPA Regional Office for guidance.

### Container Handling

**Nonrefillable Container. DO NOT** reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Triple rinse containers small enough to shake (capacity ≤ 5 gallons) as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

**Triple rinse containers too large to shake (capacity > 5 gallons) as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

**Pressure rinse as follows:** Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

(continued)

## STORAGE AND DISPOSAL (continued)

### Container Handling (continued)

**Refillable Container.** Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

**Triple rinse as follows:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

When this container is empty, replace the cap and seal all openings that have been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with a pesticide product. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transport. **DO NOT** transport if this container is damaged or leaking. If the container is damaged, or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or by other procedures approved by state and local authorities.

## In Case of Emergency

In case of large-scale spill of this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

### Steps to take if this material is released or spilled:

- In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to label.
- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

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## Product Information

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**Renestra™ insecticide** contains the active ingredients **Inscalis® insecticide**, commonly known as afidopyropen, and alpha-cypermethrin. When used as directed, **Renestra** provides knockdown and residual control of listed pests on this label. Thorough coverage of plant surfaces will result in the most effective control. Use of sufficient water volume is important, especially under dense canopy to ensure best performance.

**Renestra** can be used effectively in Integrated Pest Management (IPM) and resistance management programs.

### Mode of Action

There are two active ingredients in **Renestra**. Alpha-cypermethrin is classified by the IRAC (Insecticide Resistance Action Committee) as a **Group 3A** insecticide. **Inscalis** is classified by the IRAC as a target-site-of-action **Group 9D** insecticide. Repeated use of insecticides with similar modes of action can lead to the buildup of resistant pest populations.

### Resistance Management

For resistance-management, **Renestra** contains **Group 3A** and **Group 9D** insecticides. Any insect population may contain individuals naturally resistant to **Renestra** and other **Group 3A** and **Group 9D** insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance management strategies should be followed. To reduce the potential for developing insect resistance, rotate to an insecticide with a different mode of action. Monitor treated pest populations for resistance development. Read product label before applying any insecticide and follow label directions.

To delay insecticide resistance, take the following steps:

- Rotate the use of **Renestra** or other **Group 3A** and **Group 9D** insecticides within a growing season, or among growing seasons, with different groups that control the same pests. Avoid application of more than the maximum seasonal use rate or the total number of consecutive sprays of **Renestra** per season.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. **DO NOT** rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.

- When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
- Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
- The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.

- Adopt an integrated pest management program for insecticide/acaricides use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact BASF representatives at 1-800-832-HELP (4357).

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## Application Instructions

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For maximum effectiveness, apply **Renestra** at the first sign of pest presence before the populations increase to damaging levels. Application should be timed to coincide with locally recommended treatment threshold levels for the target pest population.

**Renestra is rainfast one (1) hour after an application has dried.**

**Apply Renestra in a sufficient volume of water to ensure thorough coverage of foliage.**

### Ground Applications

Apply to foliage using properly calibrated ground sprayers. Thorough and uniform spray will result in the most effective control. Apply **Renestra** in minimum water volume per acre as indicated in **Crop-specific Application Instructions** table. Applications made at lower volumes may result in less than thorough coverage especially in dense canopy crops. Slower activity and/or less control may result if spray coverage is limited.

### Non-ULV Aerial Applications

Thorough coverage is required to obtain optimum insect control. Avoid applications under conditions when uniform coverage cannot be obtained or when spray drift may occur. Use no less than the minimum allowed gallons of spray solution per acre. Refer to **Crop-specific**

**Application Instructions** table. **DO NOT** apply when conditions favor drift from target area. **DO NOT** apply directly to humans or animals.

## Sprinkler Irrigation System Application

**Renestra™ insecticide** may be applied using sprinkler irrigation systems on specific crops as noted in the **Crop-specific Application Instructions** table.

Sprinkler irrigation systems include center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. **DO NOT** apply this product through any other type of irrigation system.

Add **Renestra** to the pesticide supply tank containing sufficient water to maintain a continuous flow by the injection equipment. In continuous moving systems, inject this product-water mixture continuously, applying the labeled rate per acre for that crop. **DO NOT** exceed 1/4 inch (6,788 gallons) per acre. In stationary or noncontinuous moving systems, inject the product-water mixture in the last 15 to 30 minutes of each set allowing sufficient time for all of the required pesticide to be applied by all the sprinkler heads and applying the labeled rate per acre for that crop. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. Thorough coverage of foliage is required for good control. Maintain good agitation during the entire application period. If you have questions about calibration, you should contact a state extension service specialist, equipment manufacturers or other experts.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are

compatible with pesticides and capable of being fitted with a system interlock.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

## Specific Instructions for Public Water Systems

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

## Spray Drift Reduction Management

**DO NOT** apply when wind speed favors drift beyond the area intended for treatment. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator is responsible for considering these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

**Importance of Droplet Size.** An important factor influencing drift is droplet size. Small droplets (<150 to 200 microns) drift more than large droplets. Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that provides sufficient control and coverage. Use only medium or coarser spray nozzles (for ground and aerial applications) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

**Ground Applications.** Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application. For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy. For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two (2) rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

**Non-ULV Aerial Applications.** The spray boom should be mounted on the aircraft to minimize drift caused by wing tip vortices. The minimum practical boom length should be used, and must not exceed 75% of the wing span or 80% rotor diameter. Flight speed and nozzle orientation must be considered in determining droplet size. Spray must be released at the lowest height consistent with pest control and flight safety. **DO NOT** release spray at a height greater than 10 feet above the ground or crop canopy when spraying within 1,000 feet of water bodies or aquatic habitat unless a greater height is required for aircraft safety. When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind. Making applications at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

**Wind Speed Restrictions.** Drift potential increases at wind velocities of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed. Only apply this product if the wind direction favors on-target deposition. **DO NOT** apply when wind velocity exceeds 15 mph and avoid gusty and windless conditions. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

#### **Restrictions During Temperature Inversions.**

**DO NOT** make aerial or ground applications into temperature inversions. Drift potential is high during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by stable air and increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often

continue into the morning. Their presence can be indicated by mist or ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source. Smoke that layers and moves laterally near the ground surface in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical mixing.

**Terrain Precaution.** Local terrain can influence wind patterns. The applicator must be familiar with these patterns and understand their impact on drift.

**Sensitive Areas.** To ensure the protection of threatened or endangered species, it is important to maintain spray drift loadings below levels of concern for any area adjacent to the application site that is not excluded as possible habitat for these organisms.

#### **Cleaning Spray Equipment**

Before application, start with clean, well-maintained application equipment. Following spray application, thoroughly clean all application equipment. Drain application equipment of any excess product. Thoroughly rinse application equipment and flush hoses, boom, and nozzles with clean water. Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. **DO NOT** clean equipment near wells, water sources, or desirable vegetation.

#### **Additives and Tank Mixing Information**

**Renestra™ insecticide** can be tank mixed with most recommended fungicides, insecticides, liquid fertilizers, adjuvants, and additives. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions, limitations, and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Under certain conditions or when recommended under the **Crop-specific Application Instructions**, adjuvants can improve the performance of **Renestra**. However, all varieties and cultivars have not been tested with the solo product or with all possible tank mix combinations. Local conditions can also influence crop tolerance and may not match those under which BASF has conducted testing. Physical incompatibility, reduced pest control, or crop injury can result from mixing **Renestra** with other products.

Before using any tank mix (fungicides, insecticides, liquid fertilizers, adjuvants, and additives), test the combination on a small portion of the crop to be treated (including plant cultivars) to ensure that a phytotoxic response will not occur as a result of application. Always follow the most restrictive label use directions.

Evaluate for crop response 3 to 7 days before making an application to the entire crop.

When an adjuvant is to be used with this product, BASF recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

Consult a BASF representative or local agricultural authorities for more information concerning additives.

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### Mixing Order

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Make sure each component is thoroughly mixed and suspended before adding tank mix partners. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Maintain constant agitation during application.

Shake **Renestra™ insecticide** container well before use.

1. **Water** - Begin by filling a thoroughly clean sprayer tank 1/2 to 3/4 full of clean water.
2. **Agitation** - Maintain constant agitation throughout mixing and application.
3. **Inductor** - If an inductor is used, rinse it thoroughly after each component has been added.
4. **Products in PVA bags** - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
5. **Water-soluble additives** (including dry and liquid fertilizers such as ammonium sulfate or urea ammonium nitrate).
6. **Water-dispersible products** (dispersible concentrates such as **Renestra**, dry flowables, wettable powders, other suspension concentrates, or suspo-emulsions).
7. **Water-soluble products**
8. **Emulsifiable concentrates** (such as oil concentrates when applicable)
9. **Water-soluble additives** (such as AMS or UAN when applicable)
10. **Remaining quantity of water**

## Crop-specific Information

### Crop-specific Application Instructions

Crop	Pest	Product Use Rate (fl ozs/A)		Minimum Time from Application to Harvest (PHI) days
		per application	Maximum per year	
<b>Cotton</b>	Aphids (including cotton/melon) Armyworms <sup>1</sup> (beet, fall, yellowstriped) Boll weevil Bollworms (cotton, pink) Cabbage looper <sup>1</sup> Cotton fleahopper <sup>2</sup> Cotton leaf perforator <sup>1</sup> Cutworms <sup>1,3</sup> European corn borer <sup>1</sup> Grasshoppers <sup>4</sup> Plant bugs (including Lygus bug/tarnished plant bug) <sup>2</sup> Saltmarsh caterpillar <sup>1</sup> Stink bugs Thrips (including soybean (banded), tobacco) <sup>3</sup> Tobacco budworm <sup>1</sup> Whiteflies <sup>2</sup>	6.8	13.7	14

For maximum effectiveness, apply **Renestra™ insecticide** at the first sign of pest presence, and before the population increases to damaging levels. Application should be timed to coincide with locally recommended treatment threshold levels in developing pest populations.

Apply with sufficient water volume for proper coverage to ensure effective control.

Minimum spray carrier volume (per acre): 10 gallons for ground; 2.0 gallons for air.

**Resistance Management.** Refer to **Resistance Management** in **Product Information** section of this label.

#### Restrictions

- Minimum retreatment interval: 7 days.
- **DO NOT** make more than 2 consecutive applications of **Renestra** before alternating to an effective insecticide with a different mode of action.
- **DO NOT** apply more than 13.7 fl ozs of **Renestra** (0.018 lb afidopyropen and 0.05 lb alpha-cypermethrin) per acre per calendar year.
- **DO NOT** graze or feed for forage.

<sup>1</sup> **Lepidopteran egg control:** May be achieved with proper timing of applications.

<sup>2</sup> Aids in control.

<sup>3</sup> For California, not registered to control cutworms, soybean (banded) thrips, or tobacco thrips in cotton.

<sup>4</sup> **Grasshopper control:** Applications should be made based on careful field scouting for evidence of feeding damage and presence of grasshoppers in cotton. Loss of cotyledons in seedling cotton is more important than leaf loss in older cotton. Applications should be made on a broadcast basis because grasshoppers are highly mobile.

*(continued)*

**Crop-specific Application Instructions** *(continued)*

Crop	Pest	Product Use Rate (fl ozs/A)		Minimum Time from Application to Harvest (PHI) days
		per application	Maximum per year	
<b>Soybean</b>	Alfalfa caterpillar Armyworms (including beet, fall, southern, true, yellowstriped) Bean leaf beetle Blister beetles Colorado potato beetle Corn earworm Corn rootworms (adult) Cowpea curculio Cucumber beetles Cutworms European corn borer Flea beetles Grasshoppers Green cloverworm Hornworms Imported cabbageworm Japanese beetle Kudzu bug <sup>1</sup> Leaf skeletonizers Leafhoppers (including potato) Leafminers (adult) Lesser cornstalk borer <sup>2</sup> Loopers <sup>2</sup> Mexican bean beetle Painted lady (thistle) caterpillar Pea leaf weevil Plant bugs <sup>2</sup> Saltmarsh caterpillar Seedcorn maggot (adult) Silverspotted skipper Soybean aphid Spittlebug Stink bugs Threecornered alfalfa hopper Thrips <sup>2</sup> Tobacco budworm Velvetbean caterpillar Webworms Whiteflies <sup>2</sup> Woollybear caterpillar	6.8	13.7	21

*(continued)*

## Crop-specific Application Instructions *(continued)*

### **Soybean** *(continued)*

For maximum knockdown and residual control, apply **Renestra™ insecticide** at first sign of infestation according to locally recommended thresholds.

Minimum spray carrier volume (per acre): 10 gallons for ground; 2.0 gallons for air.

**Resistance Management.** Refer to **Resistance Management** in **Product Information** section of this label.

### **Restrictions**

- Minimum re-treatment interval: 7 days.
- **DO NOT** make more than 2 consecutive applications of **Renestra** before alternating to an effective insecticide with a different mode of action.
- **DO NOT** apply more than 13.7 fl ozs of **Renestra** (0.018 lb afidopyropen and 0.05 lb alpha-cypermethrin) per acre per calendar year.
- **DO NOT** feed or graze soybean hay or forage.

<sup>1</sup> For California, not registered to control kudzu bug.

<sup>2</sup> Aids in control.

## Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

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BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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